Defense Information Infrastructure (DII)

Common Operating Environment (COE)

Version 3.0

Consolidated Installation Guide for HP 10.10

3 January 1997

Prepared for:

Defense Information Systems Agency

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Installation Instructions available for the Defense Information Infrastructure (DII) Common Operating Environment (COE) Commercial-Off-The-Shelf (COTS) products do not appear in this release of the DII COE Consolidated Installation Guide. Contact the Defense Information Systems Agency (DISA) for information concerning the licensed software and supporting documentation.

NOTE: Contact DISA's Configuration Management for the available documentation on the DII COE COTS applications.

The DII COE Consolidated Installation Guide is part of a set of DII COE developer documentation published in conjunction with major or general releases of the DII COE (such as DII COE Version 3.0). It contains the latest information available on the date of release of this publication.

Segment Availability: Not all DII COE segments described in this document may be available in the referenced release of the DII COE. The information contained herein may precede the availability of certain DII COE software segments. Please visit the DISA's DII COE Home Page on the World Wide Web to obtain the most current information available and to obtain the latest available release of DII COE software segments and other related documentation required by your organization.

DISA DII COE Home Page URL: **http://www.disa.mil/dii/diicoe or http://204.34.175.79/dii/**

Segment Documentation Applicability: Software segments included in this document are identified by their DII COE segment release version number and/or product version number, as available. It is important to note, however, that documentation released with a given segment version may be applicable to subsequent version(s) of the same software segment. For example, the installation guide for a DII segment version 3.0.0.3 may also apply to version 3.0.0.4 of the same segment unless superseded by a new release of the documentation. Refer to the details provided in the Version Description Document (VDD) for a particular segment release and its related amendments or errata to obtain the most current information on the fixes incorporated, additional sources of information, or reference documents.

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Part 1. Kernel Installation Guide (HP-UX 10.10) Version 3.0.0.5

Preface

The following conventions have been used in this document:

[HELVETICA FONT]	Used to indicate keys to be pressed. For example, press [RETURN].
`Courier Font`	Used to indicate entries to be typed at the keyboard, UNIX commands, titles of windows and dialog boxes, file and directory names, and screen text. For example, type the following command at the prompt: `setenv boot-device diskN`
"Quotation Marks"	Used to indicate prompts and messages that appear on the screen.
Italics	Used for emphasis.

1. Introduction

1.1 Overview

This document provides information and guidance needed for proper installation of the HP-UX 10.10 Operating System and the Defense Information Infrastructure (DII) Common Operating Environment (COE) kernel Version 3.0.0.5.

The DII COE contains a large number of functional blocks called segments; however, not all segments are required for every application. The DII COE *kernel* is the minimal set of software required on every workstation regardless of how the workstation will be used. The DII COE kernel includes the following features:

- Operating system
- Windowing environment
- System Administration function
- Security Administration function
- Runtime tools
- Commercial Off-the-Shelf (COTS) software [including desktop graphical user interface (GUI) and windowing environment]

- Government Off-the-Shelf (GOTS) software.

The System Administration segment is required because it contains the software needed to load all other segments. The GUI is required because it is the interface through which an operator issues commands to the system. The GUI is an icon-driven and menu-driven desktop interface, not a command line interface. The templates included in the DII COE kernel describe the basic runtime environment context that an operator inherits upon login (e.g., which processes are run in the background or which environment variables are defined). The DII COE kernel ensures that every workstation in the system operates in a consistent manner and that every workstation begins with the same environment.

From an installation sequence perspective, it is necessary to define a subset of the DII COE kernel called the bootstrap DII COE. Segments are installed through a special DII COE program called the segment installation tool, which is accessed as a system administration function. However, the segment installation tool itself must be installed before it can be used to install segments. Moreover, COTS software is typically not in segment format. How then is the segment installation tool, as well as at least a minimum operating system, installed to permit the DII COE kernel to be loaded? This is done by first loading the operating system and windowing environment, then by loading the DII COE segment installation software. Once the DII COE is thus "bootstrapped," it is possible to load the remaining components of the DII COE kernel and any additional segments.

Figure 1 shows a more detailed notional depiction of the process. The user is responsible for installing the operating system and windowing environment, the DII COE, which contains operating system patches, operating system modifications to support DII, the desktop GUI, the COE, System Administration, and Security Administration.

This installation approach has several advantages: (1) It greatly simplifies the installation process; (2) it guarantees a standard starting configuration for all platforms regardless of how they will be used; and (3) it allows all remaining segments to be loaded in a standard way regardless of the hardware platform or mission application, thus simplifying system administration. Through the COE, segments may extend the base environment as required as they are loaded.

1.2 Installation Process

During the HP-UX 10.10 installation process, an installation kernel is booted from the HP-UX installation media [CD-ROM or 4mm digital audio tape (DAT)]. Your system disk is initialized and the new system is configured using configurations supplied on the installation media. Once the configuration and initialization is complete, a new full-functioned HP-UX operation system and applications are loaded from the HP-UX 10.10 media onto your system disk.

The DII COE kernel tape is then installed. The DII COE kernel provides the desktop GUI, the operating system patches, and the DII COE Security and System Administration software.

1.3 Additional Sources of Information

Reference the following documents for more information about the DII COE:

- *Defense Information Infrastructure (DII) Common Operating Environment (COE) Integration and Runtime Specification* Version 2.0, DII COE I&RTS:Rev 2.0, Inter-National Research Institute, October 23, 1995

- *Defense Information Infrastructure (DII) Common Operating Environment (COE) Programming Guide (HP and Solaris) FINAL* Version 3.0.0.3, DII.3003.UNIX.Final.PG-1, Inter-National Research Institute, October 29, 1996

- *Defense Information Infrastructure (DII) Common Operating Environment (COE) System Administrator's Guide (HP and Solaris) FINAL* Version 3.0.0.3, DII.3003.Final.UNIX.AG-1, Inter-National Research Institute, October 29, 1996

- *Defense Information Infrastructure (DII) Security Manager Application Programmer Interface*, D-13867, Release 1, Jet Propulsion Laboratory, August 26, 1996.

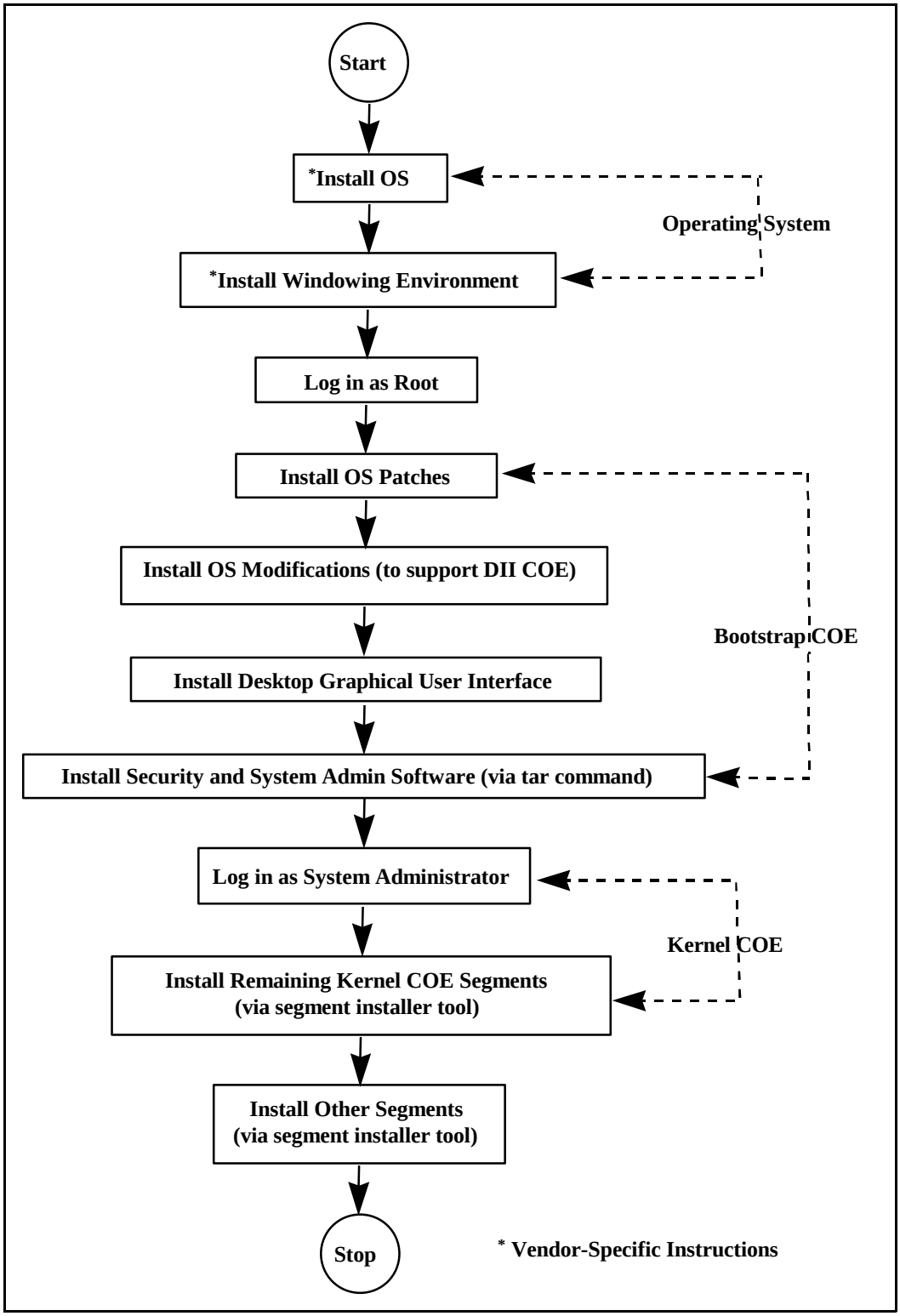

Figure 1. Notional DII COE Kernel Installation

2. System Environment

2.1 System Requirements

This section describes DII COE hardware components, HP-UX 10.10 Operating System components, and DII COE kernel components for the HP-UX 10.10 Operating System.

2.1.1 Hardware Components

The following hardware components are required. The software may reside on a single disk or across multiple disks.

- **HP computer**. An HP 9000 Series 700 computer.
- **Memory**. At least 64 megabytes (MB) of random access memory (RAM).
- **Hard disk drive**. Recommend 1.2 gigabyte (GB) or larger capacity.
- **One or more source devices**. Either a CD-ROM drive or a 4mm DAT drive to load the operating system; a 4mm DAT drive to load the software.

The following hardware components are optional:

- Floppy disk drive
- Cartridge tape drive
- 8mm Exabyte tape drive
- Sun keyboard and trackball with HP/Sun keyboard interface assembly
- Audio card
- 8-port, 16-port, or 24-port multiplexers.

2.1.2 Operating System Components

The following HP-UX 10.10 Operating System components are required:

- HP-UX INSTALL Release 10.10 CD (February 1996 Series 700) or HP-UX INSTALL Release 4mm DAT for the HP9000 S700
- HP-UX CORE OS Release 10.10 CD (February 1996 Series 700) or HP-UX CORE OS Release 4mm DAT for the HP9000 S700.

2.1.3 Kernel Components

The DII COE kernel (HP-UX 10.10) tape is required. The DII COE kernel is a suite of applications layered on top of the HP-UX 10.10 Operating System. The DII COE kernel tape contains software relating to the following areas:

- Operating system modifications
- Administration software required for installation and for system and security administration
- X Windows software
- Motif software
- Common Desktop Environment (CDE) software
- CSELCK (Deadman) software
- CSECON (Console Window) software
- CSEXDM (X Display Manager) software
- CSEPAS (Password) software
- Accounts and Profiles windowing system.

2.2 Multiple Monitor Configurations

A single, properly equipped Tactical Advanced Computer 3 (TAC-3) or Tactical Advanced Computer 4 (TAC-4) Central Processing Unit (CPU) can drive any of the following configurations:

- Single-eye console with 1-3 single-eye remote monitors
- Dual-eye console with 1-2 single-eye remote monitors
- Dual-eye console with a dual-eye remote monitor.

2.3 Installation Preparation

The following questions must be answered before you install the HP-UX 10.10 Operating System and the DII COE kernel. Your system administrator should provide you with the appropriate answers.

2.3.1 HP-UX 10.10 Operating System Installation Preparation

Answer the following questions before installing HP-UX 10.10.

1. What is the SCSI address of the CD-ROM drive or the tape drive from which you are installing HP-UX 10.10?

NOTE: Determine the SCSI address of the CD-ROM drive or the tape drive by typing the following command at a command line prompt:

```
/etc/ioscan [RETURN]
```

If the `ioscan` command returns information similar to the following, your system is using SCSI device numbers 3 and 4 for tape drives:

```
2.0.1.3.0  tape_drive  ok(0x1800202)
2.0.1.4.0  tape_drive  ok(0x1800202)
```

The `ioscan` command returns similar information for a CD-ROM drive.

Generally, SCSI address 3 is the internal tape drive and will already be created if you have an internal drive on the system. In the list above, the tape drive with the hardware path of `2.0.1.3.0` is the internal drive; the tape drive with the hardware path of `2.0.1.4.0` is, therefore, the external drive and has a device number of four.

2. If your system has more than one hard disk, which disk will you be configuring as your system root disk?

3. How much swap space will be required to support all of your applications?

4. What is the host name of the system?

NOTE:

1. The name of the system can be found by typing the following command at a prompt:

   ```
   /bin/uname -n  [RETURN]
   ```

   The name of the system is displayed.

2. The name of the system can be found if you know the Internet Protocol (IP) address of the system. Type the following command at a command line prompt. This command only works if the Domain Name Service (DNS) has been configured.

   ```
   /usr/bin/nslookup [IP address][RETURN]
   ```

   For example, if the IP address of the system is 199.165.147.175, type the following command:

   ```
   /usr/bin/nslookup [199.165.147.175][RETURN]
   ```

   The following information appears:

   ```
   Server:  [server name]
   Address: [server IP address]

   Name:    [system name]
   Address: 199.165.147.175
   ```

   where `server name` is the name server (e.g., `zephyr.rst.inri.com`), `server IP address` is the IP address of the name server (e.g., `198.17.147.40`), and `system name` is the name of the system (e.g., `miles.rst.inri.com`).

5. What is the password for the root administrative account? This password is required to log in to the system and is defined as one of the final steps in the HP-UX 10.10 installation process.

6. What is the IP address of the system?

NOTE:

1. If you know the name of the system (e.g., miles) but do not know the IP address of the system, type the following command at a command line prompt:

```
/bin/cat /etc/hosts[RETURN]
```

After you type this command, information similar to the following appears:

```
127.0.0.1   localhost
199.165.147.175   miles
```

The line that contains the name of the system being configured also includes the IP address.

2. If you know the name of the system but do not know the IP address of the system, type the following command at a command line prompt. This command only works if DNS has been configured.

```
/usr/bin/nslookup [host name][RETURN]
```

For example, if the name of the system is "miles", type the following command:

```
/usr/bin/nslookup [miles][RETURN]
```

The following information appears:

```
Server:  [server name]
Address: server IP address

Name:    miles
Address: [system IP address]
```

where `Server` is the name server, `Address` is the address of the name server, `Name` is the name of the system (the name you typed), and `Address` is the address of the system.

where `server name` is the name server (e.g., `zephyr.rst.inri.com`), `server IP address` is the IP address of the name server (e.g., `198.17.147.40`), and `system IP address` is the IP address of the system (e.g., `199.165.147.175`).

2.3.2 DII COE Kernel Tape Installation Preparation

Answer the following questions before installing the DII COE kernel tape.

1. Does the system have an internal tape drive? If so, what is the tape device number?

2. Is an external tape drive attached to the system? If so, what is the tape device number?

3. Does your network have a default router? If so, what is the IP address of the default router?

4. What is the System Administration (sysadmin) password?

5. What is the Security Administration (secman) password?

3. HP-UX 10.10 Operating System and Kernel Installation

3.1 Installing the HP-UX 10.10 Operating System

The HP-UX 10.10 Operating System can be loaded from CD-ROM or 4mm DAT; therefore, you need to boot from the CD-ROM or tape drive. The following steps detail the full installation of the operating system.

NOTE: The prompts, menus, and menu items displayed below are representative and may not reflect the actual prompts and menu items verbatim.

NOTE: This automated installation procedure is called a *destructive installation* because installation removes any previously installed software. Your disk *will* be overwritten as part of the installation process and all data will be lost.

3.1.1 Booting the HP-UX 10.10 CD-ROM or Tape

Follow the steps below to install the HP-UX INSTALL Release 10.10 CD (February 1996 Series 700) or the HP-UX INSTALL Release 4mm DAT for the HP9000 S700.

STEP 1: **Attach the appropriate drive to the system**. Attach a CD-ROM drive or a DAT drive to the system, if one is not already attached.

STEP 2: **Turn on the computer or cycle power**. Turn on the computer or type the following command at a prompt:

```
reboot [RETURN]
```

STEP 3: **Choose not to send your own message**. The following prompt may appear. If it does not appear, proceed immediately to STEP 4.

Type `N` and press [RETURN] at the following prompt.

```
Do you want to send your own message?
```

STEP 4: **Terminate the search for potential boot devices**. Press and hold down the [ESC] key *immediately* when a message similar to the following appears:

```
Press <ESCAPE> to stop the boot process.
```

The message "`Search terminated`" appears, followed by a boot prompt (e.g., `BOOT_ADMIN`, `Main Menu: Enter command or menu`, `Select from menu`).

STEP 5: **Load the HP-UX 10.10 CD-ROM or tape**. Load the HP-UX 10.10 CD-ROM or tape into the CD-ROM or tape drive.

STEP 6: **Boot the CD-ROM or tape**. Type the following command at the boot prompt:

```
boot scsi.X.0[RETURN]
```

Where X is the appropriate CD-ROM or tape drive SCSI address.

NOTE: The CD-ROM drive or tape drive number is the same number determined in Section 2.3.1, *HP-UX 10.10 Operating System Installation Preparation*.

STEP 7: **Choose not to interact with IPL**. The following prompt may appear. If it does not appear, proceed to STEP 8.

Type `N` and press [RETURN] if the following prompt appears:

```
Interact with IPL (Y or N)?
```

STEP 8: **Wait while the install kernel loads**. The install kernel loads on the system, which takes about 5 minutes.

3.1.2 Configuring and Installing HP-UX 10.10

Follow the steps below to configure HP-UX 10.10.

STEP 1: **Select the language mapping**. The following language mapping screen may appear. If it does not appear, proceed to STEP 3.

```
A PS/2 DIN interface has been detected on this system.
In order to use a keyboard on this interface, you must
specify a language mapping which will be used by X
windows and the Internal Terminal Emulator (ITE).  The
characters "1234567890" will appear as "!@#$^&*()" on
keyboards that use the shift key to type a number.
Your choice will be stored in the file /etc/kbdlang
```

The screen then lists all the languages from which to choose. Choose `PS2_DIN_US_English` by typing `44` and pressing [RETURN].

STEP 2: **Confirm the selected language is correct**. The following prompt appears:

```
You have selected the keyboard language
PS2_DIN_US_English. Please confirm your choice by
pressing RETURN or enter a new number:
```

Press [RETURN].

NOTE: Use the conventions below to manipulate the installation interface.

- Use your [TAB] key to highlight items on the screen.
- Press [RETURN] to choose or activate a highlighted item.

STEP 3: **Choose to proceed with the installation process**. The following screen appears:

```
                Welcome to the HP-UX installation process!

Use the <tab> and/or arrow keys to navigate through the following menus,
and use the <return> key to select an item.  If the menu items are not
clear, select the “Help” item for more information.


                        [      Install HP-UX       ]

                        [   Run a Recovery Shell   ]

                        [    Cancel and Reboot     ]

                        [     Advanced Options     ]


                               [    Help    ]
```

This is the first of several screens that guide you through the installation process. Press [RETURN] to select the `Install HP-UX` option, which is highlighted as the default selection.

STEP 4: **Choose to install entirely from the installation media**. Type `N` when the following prompt appears:

```
If you plan to use a network software depot to load
the operating system, you will need to enable
networking at this time.

Would you like to enable networking now?[y]
```

The following message appears:

```
Loading configuration user interface, please wait...
```

STEP 5: **Select your root disk**. The `Select System Root Disk` screen appears *only* if you have more than one target disk. If you do not have more than one target disk, proceed to STEP 6.

To select your root disk, use the arrow keys to highlight the appropriate disk. For example, in the screen shown below, the system found two disks. After highlighting the appropriate disk, use the [TAB] key to select `OK` and press [RETURN].

```
              HP-UX Install Utility – Select System Root Disk

The install utility has discovered the following disks attached to your
system.  You must select one disk to be your system root disk.  When
configured, this disk will contain (at least) the boot area, a root file
system and primary swap space.

      Hardware                Product                      Size
      Path                    ID                           (Megabytes [Mb])
-------------------------------------------------------------------------------
2/0/1.6.0                     HP_2213A                     633
2/0/1.5.0                     HP_2213A                     633


-------------------------------------------------------------------------------

[   OK   ]                    [   Cancel   ]               [  Help  ]
```

NOTE: The information that appears in the `Hardware Path`, `Product ID`, and `Size` columns will differ depending on your system.

STEP 6: **Choose a standard whole-disk configuration**. The `Select Whole-System Configuration` screen appears. Tab to [OK] and press [RETURN] to accept the `Standard Whole-disk (non-LVM) configuration` option, which is highlighted as the default selection.

STEP 7: **View Basic Configuration Parameters**. The `View/Modify Basic Configuration` screen appears.

```
          HP-UX Install Utility – View/Modify Basic Configuration

You may modify the following basic configuration parameters.  Press OK to
save your changes.

   Primary Swap Size               [ 148Mb   –>]

   Software Selection              [ VUE Runtime Environment          –>]

   Software Language               [ English                          –>]

   File system file name length    [ Long    –>]

------------------------------------------------------------------------
[   OK   ]                   [   Cancel   ]                    [  Help  ]
```

NOTE: Each of the bracketed fields in the `View/Modify Basic Configuration`screen has an underlying mini-menu, which you can display by tabbing to that field and pressing [RETURN]. Then, you can use the arrow keys to highlight the selection you want on the mini-menu and press [RETURN] again to activate the selection and exit the mini-menu.

STEP 8: **Increase the primary swap size**. The `Primary Swap Size` bracketed field should read [`148Mb`]. Press [RETURN] to display the mini-menu, which lists swap sizes from which to choose. Use your down arrow key to highlight `200Mb` and press [RETURN].

NOTE: It is recommended that you increase your primary swap size to 200Mb. Check with your system administrator if you are unsure about the amount of swap space you need to allocate.

STEP 9: **Accept the basic configuration**. Make no changes to the default values on the `Software Selection`, `Software Language`, and `File system file name length` fields. Tab to [`OK`] and press [RETURN] to accept the basic configuration.

STEP 10: **Configure the disk and the file system**. The `System Configuration` screen appears. This screen summarizes your configuration. Tab to [`OK`] and press [RETURN].

```
                HP-UX Install Utility – System Configuration

Any data on the following disks will be destroyed ...
   Hardware Path      Product ID    Size (Mb)   Disk Use    Volume Group
-------------------------------------------------------------------------------
   2/0/1.6.0          ST31230N      633         non-LVM     -
   2/0/1.5.0          HP_2213A      633         non-LVM     -
-------------------------------------------------------------------------------
– Unconfigured space from those disks: [X] Mb

... and the following file systems and swap space will be created:

   Mount Directory            Size (Mb)   Usage       Disk Group
-------------------------------------------------------------------------------
   /                          1066        HFS         2/0/1.6.0
   (swap)                     200         swap        2/0/1.6.0

If this configuration is not acceptable... [Modify Disk/FS Parameters...  ]
-------------------------------------------------------------------------------
[   OK   ]                    [   Cancel   ]                      [Help]
```

NOTE: The information that appears in the `Hardware Path`, `Product ID`, `Size`, `Disk Use`, and `Volume Group` columns will differ depending on your system.

STEP 11: **Acknowledge errors and warnings**. The `Messages Dialog` appears. Before continuing with the installation, you must address any errors or warnings listed in the dialog box. You may see a warning screen indicating that one or more of your install disks already has a file system on it and that continuing the installation will destroy any existing data on this disk.

Tab to [`Continue ...`] and press [RETURN].

NOTE: Your disk will be overwritten as part of the installation process and all data will be lost.

STEP 12: **Decline to interact with swinstall**. The `Enter SD-UX swinstall information` screen appears with the following prompt:

```
Do you want to interact with SD-UX swinstall? [ No
–>]
```

Tab to [`OK`] and press [RETURN].

The system proceeds to configure your disk(s) and file systems.

NOTE: This initial configuration takes about 5 minutes.

STEP 13: **Remove the INSTALL CD or tape and insert the CORE CD or tape**. The following information appears:

```
                    USER INTERACTION REQUIRED

     To complete the installation you must now remove the
     HP-UX installation [installation media] and insert the
     HP-UX Core Operating System [installation media].

     Once this is done, press the <Return> key to continue:
```

Remove the HP-UX INSTALL Release 10.10 CD (February 1996 Series 700) or the HP-UX INSTALL Release 4mm DAT for the HP9000 S700. Insert the HP-UX CORE OS Release 10.10 CD (February 1996 Series 700) or HP-UX CORE OS Release 4mm DAT for the HP9000 S700. Wait until the lights stop flashing and press [RETURN].

NOTE: After you press [RETURN], the installation process continues. The installation process takes from 30 minutes to 2 hours, depending on system performance and the number of products to be loaded.

The system reboots after the HP-UX 10.10 Operating System is loaded.

STEP 14: **Proceed to the next section**. Proceed to the next section to specify system information.

3.1.3 Specifying System Information

STEP 1: **Confirm that you want to link the system to a network**. The `Set System Parameters` screen appears. Make sure that the system is connected to a network, and then click on the `Yes` button to link the system to the network.

STEP 2: **Obtain essential information from your system administrator to configure the system appropriately**. The `Required Information` screen appears. This screen states that you need to know your system name (hostname), IP address, and time zone before you use the system. Your system administrator should provide you with this information. Click on the `Yes, Continue` button to indicate that you know this information.

STEP 3: **Enter a host name to identify the system on the network**. The `System Hostname` screen appears. Enter a host name (e.g., `sherlock`) in the `Hostname` field and click on the `OK` button.

NOTE: The host name must be unique within the domain in which it resides. Creating a duplicate host will cause network problems after you install HP-UX 10.10. A host name can contain up to eight characters and can contain letters, numbers, underscores (_), or dashes (-). A host name must start with a letter. Uppercase letters are not recommended.

STEP 4: **Confirm that the system's host name is correct**. The `Confirm Hostname` screen appears. Click on the `Yes` button if the information is correct, or click on the `No` button to return to STEP 3.

STEP 5: **Specify your default time zone location**. The `Time Zone` screen appears. Click on the appropriate time zone toggle (e.g., `North America or Hawaii`) and click on the `OK` button.

STEP 6: **Specify your default time zone**. The `[Selected Time Zone] Time Zones` screen appears. Click on the appropriate time zone toggle (e.g., `Eastern Standard/Daylight`) and click on the `OK` button.

STEP 7: **Confirm that the time zone information is correct**. The `Confirm Time Zone` screen appears. Click on the `Yes` button if the information is correct, or click on the `No` button to return to STEP 6.

STEP 8: **View the default date and time**. The `Confirm Date and Time` screen appears. Click on the `Yes` button to accept the default values if they are correct, or click on the `No` button to enter new values. If you click on the `No` button, proceed to STEP 9; if you click on the `Yes` button, proceed to STEP 11.

STEP 9: **Enter new values for the default date and time**. The `Date and Time` screen appears. Change any of the values in the `Year`, `Month`, `Day`, `Hour`, and `Minute` text-entry fields. Then click on the `OK` button.

STEP 10: **Confirm the new date and time**. The `Confirm New Date and Time` screen appears. Click on the `Yes` button if the information is correct, or click on the `No` button to return to STEP 9.

STEP 11: **Set the root password for the system**. The `Set Root Password` screen appears. Click on the `Yes` button to indicate that you want to set the root password.

STEP 12: **Enter and confirm the root password**. The `Root Password` screen appears. Enter the `root` password and press [RETURN] at the following prompts:

```
New password:
Re-enter new password:
```

STEP 13: **Acknowledge that the root password has been accepted**. The `Root Password Accepted` dialog box appears. Click on the `Close` button to acknowledge the message.

STEP 14: **Assign the system a unique IP address**. The `System Internet Address` screen appears. Enter the IP address in the `Internet Address` field and click on the `OK` button.

NOTE: An IP address must be unique and follow your site's address conventions or a system or network failure may result. IP addresses contain four sets of numbers between 0 and 255 that are separated by periods (e.g., 129.221.146.12).

STEP 15: **Confirm the IP address**. The `Confirm Internet Address` screen appears. Click on the `Yes` button if the information is correct, or click on the `No` button to return to STEP 14.

STEP 16: **Decline to configure additional network parameters**. The `Additional Network Parameters` screen appears, which allows you to configure the subnetwork mask and default network gateway, Domain Name Server (DNS), and Network Information Service (NIS). This network parameter information will be configured later. Click on the `No` button to decline to configure additional network parameters.

NOTE: It is recommended that your system administrator configure DNS and NIS from the System Administration menu bar. Refer to the *DII COE System Administrator's Guide (HP and Solaris)* for more information on configuring DNS and NIS.

STEP 17: **Decline to configure your system as a font server**. The `Configure Font Server` screen appears. This section allows you to set up HP VUE as a font client. Click on the `No` button.

STEP 18: **Acknowledge that the system is configured for networking**. The `System Parameters` dialog box appears. The message states that your system is configured for networking and that the system will complete its boot process and allow you to log in as root. Click on the `Close` button to acknowledge the message.

NOTE: Five minutes pass.

STEP 19: **Proceed to the next section**. Proceed to the next section to log in to the system and install the DII COE kernel.

3.2 Installing the DII COE Kernel

The DII COE kernel tape provides the desktop GUI, the operating system patches, and the Security and System Administration software. Follow the steps below to install the DII COE kernel.

NOTE: The HP-UX 10.10 Operating System *must* be loaded before the DII COE kernel can be loaded.

NOTE: All steps must be performed in the exact order presented to correctly install the DII COE kernel. No steps may be skipped.

NOTE: This procedure takes approximately 45 minutes depending on the speed of your system.

STEP 1: **Log in as root**. The Hewlett Packard "Welcome" screen appears. Type `root` in the `Login` field and enter your root password in the `Password` field. Click on the `OK` button.

STEP 2: **Load the kernel tape**. Load the DII COE kernel tape into a tape drive.

STEP 3: **Open a terminal emulator window**. Click on the `Terminal` control, which is located on the CDE Front Panel. A terminal emulator window appears.

Refer to the *DII COE System Administrator's Guide (HP and Solaris)* for more information about CDE.

STEP 4: **Change the directory to `root`**. Type the following command to change the directory to `root`:

`cd /` [RETURN]

STEP 5: **Extract the installation program from the tape**. Type the following command to extract the installation program from the tape:

`tar xvf /dev/rmt/`X`mn` [RETURN]

(where X is the tape device number).

NOTE: The tape device number is usually 0.

The following message should appear:

`tmp/inst.dii,` Y `bytes,` Z `tape blocks`

(Where Y is the number of bytes and Z is the number of tape blocks).

If an error message appears instead of this message, you need to configure your tape device driver before continuing with the installation. Proceed immediately to Appendix A, *External Tape Device Configuration*, and follow the steps listed to configure your tape device driver.

STEP 6: **Start the installation program.** Type the following command to start the installation program:

```
/tmp/inst.dii[RETURN]
```

STEP 7: **Enter the tape drive number.** The following prompt appears: `Please enter the tape drive number (eg. 0)`. Type the tape drive number and press [RETURN].

Installation of the DII COE kernel begins.

NOTE: Kernel installation takes between 30-60 minutes.

The following message appears on the screen:

```
--Default Router--

In order to specify a default network router, you need
to provide the router network (IP) address.
```

STEP 8: **Determine if your network has a default router.** The following prompt appears: `Does this network have a default router?`Type `Y` or `N` and press [RETURN]. If you type `Y`, proceed to STEP 9; if you type `N`, proceed to STEP 11.

STEP 9: **Enter the IP address of your default router.** The following prompt appears: `Enter the IP address of your Default Router, then press [Return]`. Enter the IP address (e.g., `165.147.143.121`) and press [RETURN].

STEP 10: **Confirm that the default router IP address is correct.** The following prompt appears: `You have chosen [IP address] as the default router for this system. Is this correct?`Type `Y` and press [RETURN] if the information is correct, or type `N` and press [RETURN] to return to the prompt described in STEP 9.

STEP 11: **Enter and confirm password for `sysadmin`.** Press [RETURN] after you enter the necessary password for each of the prompts:

```
Enter password for sysadmin:
New password:
```

```
Re-enter new password:
```

STEP 12: **Enter and confirm password for `secman`.** Press [RETURN] after you enter the necessary password for each of the prompts:

```
Enter password for secman:
New password:
Re-enter new password:
```

The system reboots and the installation is completed. You can now log in to the system, as described in Section 4, *DII COE Login Accounts*.

4. DII COE Login Accounts

After you install the HP-UX 10.10 Operating System and the DII COE kernel, predefined login accounts are available to allow you to perform functions that are described in detail in the *DII COE System Administrator's Guide (HP and Solaris).*

To use the DII COE, you must enter a login name and password. The DII COE Login screen appears any time a machine loaded with HP-UX 10.10 Operating System and the DII COE kernel is rebooted:

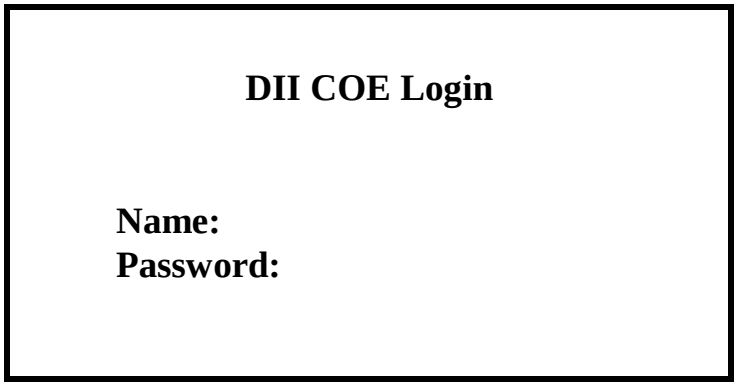

Figure 2. DII COE Login Screen

To begin using the DII COE, enter any of the valid login commands described in the following sections.

4.1 The System Administration Login

The sysadmin login displays a menu bar of system administration and maintenance utilities. These utilities allow the system administrator to perform various system administration functions, such as selecting and configuring printers, managing print jobs, and closing windows; rebooting and shutting down the system, mounting file systems, formatting hard drives, and initializing floppy diskettes; loading or installing segments; changing the machine ID, editing host information,

setting the system time, configuring a workstation as a DNS, setting routing configuration, configuring mail on a workstation, and configuring NIS; and removing global data.

For further information about the Security Administration application software, please reference the *DII COE System Administrator's Guide (HP and Solaris).*

Follow the steps below to log in to the System Administration utility from the DII COE Login screen:

STEP 1: **Log in as system administrator**. Type `sysadmin` at the `Name` prompt and press [RETURN].

STEP 2: **Enter the default password**. Type the default password at the `Password` prompt and press [RETURN].

The System Administration software appears.

4.2 The Security Administration Login

The secman login displays a menu of security administration and maintenance utilities. These utilities perform security administration tasks such as setting menu fonts, accessing audit information, accessing alarms, setting classification, creating and maintaining user roles, and configuring printers. For further information about the Security Administration application software, please reference the *DII Security Manager Application Programmer Interface*.

Follow the steps below to log in to the Security Administration utility from the DII COE Login screen:

STEP 1: **Log in as security administrator**. Type `secman` at the `Name` prompt and press [RETURN].

STEP 2: **Enter the default password**. Type the default password at the `Password` prompt and press [RETURN].

The Security Administration software appears.

4.3 The Root Login

The root login is the standard UNIX root login. Follow the steps below to log in as root from the DII COE Login screen:

STEP 1: **Log in as root**. Type `root` at the `Name` prompt and press [RETURN].

STEP 2: **Enter the default password**. Type the default password at the `Password` prompt and press [RETURN].

A terminal emulator window with root privileges appears.

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Appendix A - External Tape Device Configuration

Follow the steps below to configure an external tape device using the HP-UX System Administration Manager (SAM).

STEP 1: **Select the `usr` folder**. Double-click on the `usr` folder, which is located in the `File Manager` window.

STEP 2: **Select `sbin` folder**. Double-click on the `sbin` folder.

STEP 3: **Select the `sam` icon**. Double-click on the `sam` icon.

STEP 4: **Execute the System Administration Manager (SAM)**. The `Action: Execute` window appears. Click on the `OK` button without entering any options or arguments.

STEP 5: **View peripheral devices**. The `Welcome to SAM` window appears, followed by the `System Administration Manager` window. Inside the `System Administration Manager` window is the `SAM Areas` subwindow. Double-click on the `Peripheral Devices` icon.

STEP 6: **View tape drives**. The `SAM Areas: Peripheral Devices` subwindow appears. Double-click on the `Tape Drives` icon.

STEP 7: **Acknowledge that the system cannot locate any tape drives**. Click on the `OK` button when the following `Note` appears:

```
No tape drives were found during the hardware scan. To add a
tape drive, select “Add” from the “Actions” pulldown menu. For
more information, choose “Overview” from the “Help” pulldown
menu.
```

STEP 8: **Proceed to add a tape drive to the system**. The `Tape Drive Manager` window appears. Select the `Add` option from the `Actions` pull-down menu.

STEP 9: **Read the information about adding a tape drive to the system**. The `Add Tape Drive` window appears, which lists the steps for adding a tape drive to the system. Read the information provided and click on the `OK` button.

STEP 10: **Confirm that the new driver should be added to the kernel**. The `Confirmation` window appears, which lists the driver that is not configured into the kernel. The window has the following prompt:

```
Do you want SAM to add this driver to the kernel at this time?
```

Click on the `Yes` button.

STEP 11: **Create a new kernel**. The `Create a New Kernel` screen appears with the following message:

```
You have made changes to the kernel. In order for
these changes to take effect, a new kernel must be
compiled and moved into place.
```

The `Create a New Kernel Now` toggle is already selected by default. Click on the `OK` button. The following message appears:

```
Creating the kernel (this may take a few minutes)
```

STEP 12: **Choose to move the new kernel into place and to continue system shutdown**. The `Reboot the System` screen appears with the following message:

```
The new kernel you have just created must be moved
into place prior to shutting down or rebooting the system.
```

The `Move Kernel Into Place and Continue Shutdown (Reboot) Now` toggle is already selected by default. Click on the `OK` button.

STEP 13: **Confirm that the contents in the `/stand/system` file will be erased**. Click on the `OK` button when the following `Note` appears:

```
The newly created configuration file will be copied to
/stand/system. Any comments in that file will be lost because
SAM cannot preserve them. This is the default.
```

STEP 14: **Confirm that you will cycle power once the system has halted**. Click on the `OK` button when the following `Note` appears:

```
The reboot operation about to be performed will also halt the
system. Once the system has halted, you should turn off the
power before performing the necessary peripheral device
configuration.
```

STEP 15: **Cycle power**. Cycle power once the system has halted.

STEP 16: **Log in.** Log in as root.

STEP 17: **Proceed to install the kernel**. Proceed to Section 3.2, *Installing the DII COE Kernel*, and follow the steps listed beginning with STEP 1.

Part 2. Installation Instructions for the Developer's Toolkit (HP-UX 10.10) Version 3.0.0.5

Reference the *DII COE Programming Guide (HP and Solaris)* for instructions on installing the developer's tools.

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Part 3. Installation Instructions for the Remote Segment Installer Segment Version 2.0.0.0

Installing the Remote Segment Installer Segment

The system administrator must ensure that the system is loaded correctly with the DII COE Version 3.0.0.3 before loading the Remote Segment Installer Version 2.0.0.0 segment. The Remote Segment Installer segment then can be installed using the `Segment Installer` option from the `Software` pull-down menu. Reference the *DII COE System Administrator's Guide (HP and Solaris)* for instructions on installing the Remote Segment Installer segment.

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Part 4. Installation Instructions for Unified Build Version 3.0.2.3

Installation instructions are provided by DISA. The load order of the tapes provided for this build are as follows: **UB, Link-11, JMTK**.

- NIMA JMTK versions 1.0.0.5 and 1.0.0.6 are not compatible with UB 3.0.2.3 due to changes in database format and NRTI.

- See Section 5 of the UB 3.0.2.3 Version Description Document for 11K track database and two-way Link-11 considerations.

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Part 5. Installation Procedures - Quick Guide for News Make Group

Introduction

The following is a quick reference for installing the "News Make Group" application for the DII on SUN or HP machines. For more detailed information regarding the installation and operation of the "News Make Group" application, please refer to either the on-line help documentation at the time of installation or to the most recent version of the "DII System Administrators Manual."

Installation Procedures

The "News Make Group" application should be installed on any client or server machine that you want to create news groups from. Once the application is installed, you will be able to create news groups for any news server (depending on the server's configuration).

You should determine which news servers you wish to create newsgroups against and take note of these "fully-qualified" machine names. For example, if your domain is "mybase.smil.mil" and your site's news server is "news," you would enter "news" as the machine name, and then "mybase.smil.mil" as the domain name. Finally, the "fully-qualified" machine name you should enter will be:

"news.mybase.smil.mil"

The designated news server will be "pinged" to verify that it is "alive" and a connection can be made. If the "ping" is unable to make a connection, you will still have the option to put this news server into a configuration file.

After the installation is successfully completed, you should be able to "double-click" on an icon (symbolic of a Newspaper front page) in the Application Manager. You should notice that a pop-up dialog will appear asking you for a news server name (i.e., one of the news server names you entered during the installation process, or any other news server). After the "fully-qualified" news server name is entered, you will temporarily see another dialog with a clock which will eventually disappear, yielding the main window of the "News Make Group" application. At this point, you are ready to specify a news group. When you complete the newsgroup specification, "News Make Group" will send a control message to the specified news server requesting the creation of the new newsgroup.

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Part 6. Installation Procedures for PERL Version 1.0.0.2/perl5.003

Installation Procedures, PERL version 1.0.0.2/perl5.003 (HP-UX 9.07 and Solaris 2.4), Draft October 30, 1996.

Introduction

The following is a quick reference for installing the PERL segment onto Sun or HP-based DII workstations.

Installation Procedures - PERL

To install the PERL segment, select the PERL segment from the COE Installer's 'Select Software to Install' window and press the "INSTALL" button. This segment requires no input from the installer and will only display an 'installation complete' confirmation message.

Note that this segment establishes two symbolic links:

/usr/bin/perl —> /h/COE/bin/perl
/usr/local/bin/perl —> /h/COE/bin/perl

De-Installation Procedures - Perl

To de-install the PERL segment, select the PERL segment from the COE Installer's 'Currently Installed Segments' window and press the "Deinstall Software" button.

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Part 7. Installation Procedures for TCP Wrappers 1.0.0.1/7.1

1. Hardware and Software Requirements

This segment requires only that the COE be installed on a Hewlett Packard machine.

2. Installation Instructions

1. Install the segment using ordinary segment installation procedures.

2. During installation, you will be prompted whether you want to go ahead with an automatic installation, or install parts of the program manually. An automatic installation will do the following:

   a) It will replace your present inetd.conf file with a template included in the distribution. The template should be appropriate for most system configurations.
   b) It will then kill the present inetd session, and restart the inetd with the new configurations. TCP wrappers is now running.

   If the system you are installing TCP wrappers on has non-standard inetd configurations, such as restricting network access to only ftp and telnet, you will need to follow the above steps manually. Detailed instructions on this are in the Release Notes.

3. Only the logging function of TCP wrappers is enabled by default. If you wish to make use of wrapper's ability to restrict network access according to specific host name, the original readme file in the Release Notes gives the proper instructions.

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Part 8. Installation Procedures for Tripwire 1.0.0.1/1.2

1. Hardware and Software Requirements

Tripwire requires only that the DII COE be installed on a Hewlett Packard machine.

2. Installation Instructions

1. Install the segment using ordinary segment installation procedures.

2. Detailed instructions on how to setup and configure Tripwire to run on your system are given immediately after installation in an xterm window. Instructions are also available in the Release Notes. A brief outline of those instructions follows.

    a) Edit the Tripwire configuration file. (/h/COTS/TRIP/data/TRIP.config)
    b) Create the database file.
    c) Configure Tripwire to run weekly if desired.

3. Refer to the Operator's Manual for instructions on running Tripwire.

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Part 9. Installation Instructions for the Common Message Processor Version 1.2

1. Installation Instructions

The installation instructions are provided in the Software User's Manual (SUM) for the DII COE CMP. The following is an extract from Appendix A of the Software User's Manual (SUM) for the DII COE CMP.

2. Installation, Configuration, and Operation

This section is a guide for the system administrator at your site. It describes how to install the CMP from the distribution tape, how to customize it for your system, and how to operate the message processor and user interface programs. We assume that the system administrator is familiar with the typical details of UNIX system administration: creating new accounts, operating the tape drive, etc. If not, the *Sun System & Network Manager's Guide* is a good introduction.

2.1 Installation

To facilitate ease of installation, the Army has created "script files" which performs installation and creation of the required paths. Use of the script files reduces the need to define step by step installation procedures.

Once the tar format tape has been extracted onto the system, a number of directories are created (for the binary distribution). These include bin, lib, src, man, and spool. Only bin and lib are important in the actual CMP execution. The directories are described as follows:

> NOTE: In this section there are files using the term "jmps" interchangeably with the term CMP. This will be changed in later versions of the CMP software release.

bin: Contains the CMP executable.

lib: Contains the jmps.ini initialization parameter file example, the jmpsrc preference file example (copy to HOME as .jmpsrc), and the selected or available messages along with bitmaps for the program icon display.

src: Contains the jogs compiler for those who need to create binary (.i) message files for CMP.

man: A manual directory currently empty

spool: Output directory currently empty.

2.1.1 CMP Installation

Log in as the defined user account and extract the CMP distribution by typing: $ tar xvf /dev/rmt/0m (or your DAT device name).

2.1.1.1 Journal Installation

1. Log in as any user. cd ~JOURNALING

2. Execute the INSTALLJOURNAL script file.

3. This script will configure the paths to the primary and secondary storage location for messages.

4. cd to the bin directory under JOURNALING and type either jnl_server_trarc_fb master (for the file based implementation) or jnl_server_trarc_db master (for the database implementation).

5. You should see the following response:

   Initializing msg.db, data.db, memo.db, destInfo.db, hdrInfo.db ..DONE!
   ----send log thread created-------

   Listening for Requests ...

2.1.1.2 DISCRIMINATOR Installation

1. Login as any user. cd ~DISC

2. Execute the INSTALLDISC script file.

3. This script will configure the paths in the config.dat file.

4. cd to the bin directory under DISC and type either:

   disc_trarc_fb (for the file based implementation) or
   disc_trarc_db (for the database implementation.)

2.1.1.3 JMPS Installation

1. Login as any user. cd ~JMPS

2. Execute the ./lib/JMPinst script file.

3. This script will:

   Configure the jmps.ini file.
   Configure all the executables using confadm.

4. cd to the bin directory under JMPS and verify that the path to the jmps.ini file is correct by doing:
   confadm q jmps

5. If the path is not correct, set the location of the jmps.ini file by doing:
   confadm s <your path to the file>/JMPS/lib/jmps.ini jmps

6. Set the DISPLAY environment variable to the current display if it is not already set by doing:
   $ export DISPLAY = netmon:0.0 (example for Korn shell)
   $ setenv DISPLAY netmon:0.0 (example for C shell)

7. To run JMPS, cd to the bin directory under JMPS and type:
   $ jmps tmp
   where "tmp" is any file name which will contain the edited message.

8. If "tmp" is a new file, the user will be prompted with a message type to edit based on the name.db file. If the message has already been created and is to edited, the main jmps input screen will appear.

2.1.1.4 JMAPS Installation

1. Login as root. cd ~JMAPS

2. Execute the ./installation script file. This should configure JMAPS to be run from the jmapsadm account. Answer the prompts with the correct name of the account and where the JMAPS executables have been restored.

3. This script will also:
   Create the .Mapsconfig file under JMAPS.
   Configure the binaries using the confdir prog.
   Install the JMAPS Xdefaults file in the appdefaults directory.

4. To test, coldstart JMAPS by typing:
   $ jmaps coldstart ui

2.1.1.5 CUI Installation

1. Login any user. cd ~CUI

2. Execute the INSTALLCUI script file.

3. This script will ensure that a soft link exists to your current location of jmps (assuming that JMPS has been installed at the same tree level.)

4. cd to the bin directory under CUI and type either
   cui_trarc_fb (for the file based implementation) or
   cui_trarc_db (for the database implementation.)

5. The CUI window will appear.
   Note: Requires Journaling Server be installed prior to installation of this module.

2.2 Choose Names and Locations

You must choose names for the system administrator account and the CMP group. The standard names for these are:

parseradm the system administrator user name

parser the CMP group name

These accounts are used by the processor for authorization and authentication purposes. The **parseradm** user is the only user permitted to start and stop the message processor. Other users may run the user interface if they are members of the CMP group.

You must also choose a location for the home directory. This will be the home directory of the system administrator account, and will contain all of the executable and data files. The standard location is **/usr/local/parser**.

The file system containing the home directory must have at least 20 megabytes of free space for the executable and data files. In addition, more storage will be required in this file system during execution: as messages arrive, they are saved in the message journal; query reports are generated; and data is stored in the system logs. You should treat the above space requirements as an absolute minimum and allocate as much additional space as possible.

It is recommended that you use the standard names and locations, but you can choose others if necessary. If, for example, you decided to use **/usr/new/parser** as the home directory, then for the remainder of this section you would have to replace every occurrence of **usr/local/parser** with **/usr/new/parser**, **/usr/ local/parser/bin** with **/usr/new/parser/bin**, etc.

2.2.1 Create User and Group Accounts

You can create the **CMP** group account by making an entry in the **/etc/group** file. You may choose any groupID number as long as it is not already used by another group.

You create the **parseradm** user account by making an entry in the **/etc/passwd** file. Make sure that this user is a member of the processor group. Set the user's home directory to **/usr/local/ parser**. (Create this directory if it does not already exist.) We recommend that you **use /bin/csh** as the login shell for this user.

(Complete instructions for adding a new user account are supplied in Chapter 6 of the *System & Network Manager's Guide* volume of the SunOS documentation).

2.3 Configuration

The parser keeps its site configuration information in a plain text file called **.MAPSconfig** in the administrator's home directory (**/usr/local/CMP**). Almost all of this information is automatically set by the installation process. However, there are eight parser configuration parameters which may need to be adjusted by the parser administrator. These parameters are as follows:

a. **ATT.confdir**: This is the name of the directory containing the client configuration files (see Section 3.8.1). On startup, the parser processes all of the client configuration files found here. The default value is **/usr/local/parser/config**.

b. **MIO.inputPort**: This is the tty port set up for use by the processor. If you are sending messages to the processor over a serial line, then you may need to change this parameter. The default value is **ttya**.

c. **MIO.printEnable**: This tells the processor to print incoming messages as they are received from the serial communications port. A value of 1 (one) enables printing, and 0 (zero) disables printing. The default value is **0**.

d. **MIO.printCmd**: This is the command used to print ordinary text received from the standard input. The print command must be enclosed in double quotes if it includes any spaces. The default value is **lpr**.

e. **CPP.maxSectionWait**: This is the value, in hours, that the processor will wait for missing message sections to arrive. The timer starts running when the first message section is received. When the timer expires, the processor will put the incomplete message in the incomplete MsgDir. There is a separate timer for each message. The default value is 24.

f. **SHMALLOCATOR.size**: This is the number of bytes of shared memory that the processor will use. The default value is **1572864**, which is approximately 1.5 megabytes of shared memory. The remaining shared memory in the system is reserved for other processes. You may increase this value to give the processor more shared memory. If you do this, you may also have to reconfigure your kernel to change the maximum shared memory size. (See Section 3.9.1.1).

g. **IPCS.fieldsOnDisk**: This switch controls how the processor will transfer a message between its internal components. If the value is **0**, it transfers messages using shared memory. This is faster, but may require more shared memory than is available. If the value is 1, the processor transfers messages as a disk file. This is slower but requires much less shared memory. The default value is **1**.

h. **STANDARD**: This variable controls which message standards a particular process will use. The first character in this variable corresponds to the use of the USMTF standard and the second character corresponds to the use of the OTH Gold standard. The use of a standard is represented by '1' while omission of a standard is represented by '0.'

The configuration parameters in the .**MAPSconfig** file may be changed using any text editor. Changes will take effect the next time the processor is started.

All of the processor programs know the location of the .**MAPSconfig** file because it is build into them as a constant string. This means that if the .**MAPSconfig** file is ever moved, the executable files must be updated with the new location. This could happen if, for example, the entire processor tree must be moved from one file system to another.

Suppose, for example, that we have just move the parser directory tree to **/export/parser**. Then, to update the executables, we must execute the following commands:

cd/export/parser

bin/confdirs/export/parser bin/*demo/bin/*

This will update all of the system and demonstration programs. There will be several "*progname* is not a configurable executable file" warning messages, which should be ignored.

2.4 Operation

In general, only the administrator can directly control the message processor. Other users can only run the user interface program. The commands associated with controlling the parser message processor are as follows:

coldstart: run the message processor for the first time
snapshot: save the internal state of the message processor
shutdown: stop the message protocol
warmstart: restart the message processor from a previously saved state
killprocessor: terminate the message processor without saving the current state.

2.4.1 Initializing the Processor

The **coldstart** command is used when the CMP has never been run on your computer before (i.e., the first time it is started). It initializes the system and creates internal data structures necessary for proper operation. Afterwards, the processor will read incoming messages, but it will not perform any message processing until it is told about its client applications.

By default, the processor will not attempt to read messages from a serial communication line. If you want it to listen to the serial communications line, use the command **coldstartcomm** instead.

When you run **coldstart** you create an "empty" processor, with no messages received and no queries or routing information entered. The results of previous operations will be lost. If you wish to resume a previous execution instead of starting a new processor "from scratch," you must use the **warmstart** command instead.

2.4.2 Saving the System State

The **snapshot** command records the internal state of the message processor. This state information is complete in that it includes the message journal, query reports, the error log, a description of the processor client applications, and the message information these clients require.

The state information is kept in the storage **directory in a file that is always named** data**. This file is overwritten by each snapshot or shutdown operation. A single backup copy of the data file is always saved before creating a new version. This file is named** dataBack**.**

2.4.3 Shutting Down the Processor

The **shutdown** command is performed whenever it is necessary to turn off the processes. A shutdown performs a snapshot before terminating the processes. This allows the administrator to warmstart at a later date, and the system will pick up where it left off.

When it is not running, new messages that arrive at the communication port will not be read. They will be lost.

2.4.4 Restarting the Processor

The **warmstart** command starts the processor, recovering the system state from the **data** file created by a previous **snapshot** or **shutdown**.

By default, it will not attempt to read messages from a serial communication line. If you want it to listen to the serial communications line, use the command **warmstartcomm** instead.

2.4.5 Killing Processes

The **kill** command terminates the message processor and all user interface processes running on the local machine and removes all shared memory segments and semaphores that belong to the user. This command does not save the current state.

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Part 10. Installation Procedures for JMTK Version 1.0.0.5

Installation Instructions

Follow the installation instructions below to install either a Solaris 2.4 or HP-UX 9.07 tape:

1. Place the tape in the corresponding tape drive and wait for the lights to stop flashing.

2. Log in as sysadmin and select the Software option from the System Administrator menubar. Then select the COE Installer option. The COE Installer widow will appear.

3. Select the Read TOC button in the COE Installer window. The segment name JMTK will now appear in the Table of Contents field of this window.

4. Select the JMTK segment by clicking on the entry. Then select the Install button. The JMTK segment will now be installed on the system.

5. Remove the tape from the drive after the JMTK segment is installed successfully.

6. Select the STAT LOG button in the COE Installer window to verify installation of the segment.

7. Exit the COE Installer window.

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Part 11. Installation Procedures for Internet Relay Chat Server (IRCS) Version 1.0.0.2/2.8.21

Installation Procedures, Internet Relay Chat Server (IRCS) Version 1.0.0.2/2.8.21 (HP-UX 9.07 and Solaris 2.4), November 21, 1996.

1. Introduction

The following is a quick reference for installing the Internet Relay Chat (IRC) Server on DII SUN and HP machines. For more detailed information regarding the installation the IRC Server application, please refer to the on-line help documentation at time of installation.

2. Installation Procedures

PRE-INSTALLATION INSTRUCTIONS -

The IRC Server should be installed on the application server machine for your site.

Before installing the IRC Server, be sure that you've done the following:

- Determine which sites on the SIPRNET you wish to communicate with on the IRC network.

- Contact the systems administrator for these sites to obtain the following information:

    a) Site Name
    b) Machine name and/or IP Address
    c) The Authentication Code for the IRC server at this site
    d) Whether this site's server is a "hub" or "leaf" server on the IRC Network

IRC servers at these sites will be referred to as "IRC Server Neighbors." You will also have to provide the above information to these sites as well so that they can configure their IRC servers accordingly.

This IRC server installation routine creates the */h/COE/Comp/IRCS/lib/ircd/ircd.conf* file which contains the configuration information for your server. Since most of the information contained in this file is in plain text, this file may be modified using a text editor to make minor changes, if necessary (e.g. correcting typos, changing an operator's nickname, etc). If you have modified this file manually, execute the following commands as "*root*" so that your changes may take affect:

1) /h/COE/Comp/IRCS/lib/stop
2) /h/COE/Comp/IRCS/lib/start

When using the Segment Installer to install this segment, pay close attention to and follow all instructions provided. *Please be sure to make note of any warning messages which may appear during the course of the installation.*

INSTALLATION WALKTHROUGH -

The following is a brief walk through of the installation procedures for the IRC Server:

1. *" * * * IRC Server Type Specification * * * "*

When prompted, type "leaf" or "hub" to specify your server as a 'leaf' or 'hub' server respectively. If you are not sure whether or not your server is a hub or a leaf, then, accept the default of "leaf."

2. *" * * * IRC Server Host Configuration * * * "*

   a) If the machine configuration information displayed is not correct for your machine respond "n." This will terminate the installation procedures allowing you to check your machine's configuration and make necessary modifications.

   b) If the machine configuration information displayed is corrected, press [ENTER].

   c) If another IRC server has been located in your domain and you wish establish another server in your domain, type "y" and [ENTER] when prompted.

   d) When prompted, enter the correct server name for your IRC server if the default server name specified is not correct. (If your machine has an DNS alias with the prefix "irc," enter the full DNS alias name here.)

3. *" * * * IRC Server Administration Specification * * * "*

   a) Enter the name of your facility (e.g. "Kiesler AFB")

   b) Enter a brief function description of your server (must be 65 characters or less). This description should indicate how the server will be used on the network (e.g. "Hub Server for SE USA")

   c) Enter the name, e-mail address and/or telephone number of the person who can provide technical assistance to users accessing this server.

4. *" * * * IRC Server Operator Specification * * * "*

[Note: IRC Operators need not be specified for leaf servers. Therefore, this routine may be by-passed for leaf servers, if desired.]

[Note: the IRC Operator nickname is "oper" by default. The *ircd.conf* file can be edited if a different nickname is desired.]

a) When prompted, press [ENTER] to allow operators to connect to your server from any machine in your server's domain.

b) If you do not want operators to connect to your server from any machine in your server's domain, enter the machine name or IP address of the machine from which they can connect to your server as operators. (Note: You may use wild cards for the machine name or IP address to specify multiple machines.)

c) When prompted, enter a non-null, authentication code (8 characters or less) that IRC operators will use to authenticate themselves on client machines.

d) Repeat steps "4b" and "4c" above to specify additional client machines that IRC operators may use to access the server.

5. *" * * * IRC Server Neighbors Specification * * * "*

Neighboring IRC Servers should only be specified after ALL of the information specified in the "Pre-Installation Instructions" section of this document has been obtained for a particular site.

Note: IRC Neighbor Servers need not be specified at time of installation. Therefore, this routine may be by-passed, if desired. You may execute the routine

```
/h/COE/Comp/IRCS/bin/IRCS_verify add_neighbors
```

to specify neighboring IRC servers at a later time.

a) When prompted, enter the name of the machine hosting your neighbor's IRC server.

b) Enter your neighbor's IRC server name (that is, the IRC server name your neighbor used or will use when installing their IRC server.)

c) Enter a non-null, authentication code (8 chars or less) that your server will use to access your neighbor's server.

d) Enter a non-null, authentication code (8 chars or less) that your neighbor will use to access your server.

e) When prompted, indicate whether or not this neighboring server is a "hub" or "leaf" by responding "y" or "n," respectively.

f) Repeat steps "5a" to "5e" above to specify additional neighboring IRC servers.

6. *" * * * IRC Server Automatic Start-up * * * "*

Please make note of all pertinent information that appears in this display window.

Part 12. Installation Procedures for Internet Relay Chat Client (IRCC) Version 1.0.0.3/1.16

Installation Procedures, IRCC version 1.0.0.3/1.16 (HP-UX 9.07 and Solaris 2.4), Draft October 18, 1996.

1. Introduction

The following is a quick reference for installing the IRCC segment onto Sun or HP-based DII workstations.

2. Installation Procedures - IRCC

PRE-INSTALLATION INSTRUCTIONS -

An IRC server should be installed on the application server machine for your site.

When using the COE Installer to install this segment, pay close attention to and follow all instructions provided. *Please be sure to make note of any warning messages which may appear during the course of the installation.*

INSTALLATION WALKTHROUGH -

1. To install the IRCC segment, select the IRCC segment from the COE Installer's 'Select Software to Install' window and press the "Install" button.

2. When prompted, enter the name of the IRC server machine you wish to connect to.

3. If the server machine you entered can not be located on the network, you will receive the following message:

   "<server machine> does not respond to ping. Use it anyway?"

   If you still wish to use this server machine, then type a "Y" and press [ENTER]. However, if you wish to select a different server machine, type an "N" and press [ENTER]. You will be prompted again to enter a server machine name. Please follow instructions presented above in step 2.

3. De-Installation Procedures - IRCC

To de-install the IRCC segment, select the IRCC segment from the COE Installer's 'Currently Installed Segments' window and press the "Deinstall Software" button.

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Part 13. Installation Procedures for Mail Services (MSVCS) Version 1.0.0.3

Installation Procedures Mail Services (MSVCS) Version 1.0.0.3 HP-UX 9.07/Version 1.0.0.2 Solaris 2.4 and Solaris 2.5.1, December 11, 1996.

Copyright

1. Introduction

The following is a quick reference for installing the *Mail Services (MSVCS)* Segment onto DII SUN and HP workstations.

2. Installation Procedures

To install the MSVCS segment, select the MSVCS segment from the COE Installer's 'Select Software to Install' window and press the "INSTALL" button. This segment requires no input from the installer.
The following message will be displayed after the segment contents have been installed onto your machine:

" * * * *Informational Message* * * * "

"The <inetd> daemon has been re-started"

This message is displayed in order to inform you that the changes made to the *inetd.conf* file during the installation of this segment have taken affect.

After reading this message, click on the [OK] button.

If you have any problems installing this segment, please contact your system administrator.

3. De-Installation Procedures

To de-install the MSVCS segment, select the MSVCS segment from the COE Installer's 'Currently Installed Segments' window and press the "Deinstall Software" button. The following message will be displayed before the segment contents have been removed from your machine:

*" * * * Informational Message * * * "*

"The <inetd> daemon has been re-started"

This message is displayed in order to inform you that the changes made to the *inetd.conf* file during the de-installation of this segment have taken affect.

After reading this message, click on the [OK] button.

If you have any problems de-installing this segment, please contact your system administrator.

Part 14. Installation Procedures for COE_Comp_Table Version 1.0.0.0

Installation Procedures (IP) COE_Comp_Table 1.0.0.0 for HP-UX, 9 December, 1996.

Hardware and Software Requirements:

This COE_Comp_Table segment requires only that the COE be installed on a Hewlett Packard machine.

Installation Instructions:

1. Install the segment using ordinary segment installation procedures.